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UNITED STATES DISTRICT COURT
DISTRICT OF NEW JERSEY

CELGENE CORPORATION, **Plaintiff,** **v.** **NATCO PHARMA LIMITED, ARROW INTERNATIONAL LIMITED, and WATSON LABORATORIES, INC.,** **Defendants.**	**Civil Action No. 10-5197 (SDW)(MCA)** **Hon. Susan D. Wigenton, U.S.D.J.** **Hon. Madeline C. Arleo, U.S.M.J.** **(Filed Electronically)**

CELGENE'S OPENING *MARKMAN* BRIEF

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Plaintiff Celgene Corporation ("Celgene") submits this brief in support of its proposed constructions of the disputed claim terms of United States Patent Nos. 6,281,230 (the "'230 patent"), 6,555,554 (the "'554 patent"), 7,189,740 (the "'740 patent"), 7,465,800 (the "'800 patent"), 7,968,569 (the "'569 patent"), 7,977,357 (the "'357 patent"), 8,193,219 (the "'219 patent"), 8,228,415 (the "'415 patent"), and 8,431,598 (the "'598 patent") (Exs. 1-9, respectively).[1] Celgene also submits the Declarations of Dr. Stephen R. Byrn, Ph.D. ("Byrn ¶ __") and Dr. Jerry L. Atwood, Ph.D. ("Atwood ¶ __") in support of this brief.

I. INTRODUCTION

The eighteen patents-in-suit cover various novel aspects of the life-saving drug lenalidomide, which was discovered and developed by Celgene. Specifically, the patents relate to the lenalidomide compound itself, breakthrough medical uses, pharmaceutical compositions, and different crystal forms of the compound. The parties have identified sixteen disputed claim terms, several of which appear in multiple patents-in-suit. As discussed herein, many of the disputed terms do not require construction. For those that do, Celgene's constructions derive directly from the intrinsic evidence, or use the ordinary meaning of the disputed term where the specification does not provide an explicit definition. This common-sense approach to claim construction follows the Federal Circuit's controlling guidance in *Phillips* and its progeny.

By contrast, Natco's proposed constructions violate several bedrock principles of claim construction. For example, Natco repeatedly seeks to read limitations into the claims that have no basis in the intrinsic record, to read embodiments out of the claims, and to improperly limit claims to examples or embodiments. For at least these reasons, and those discussed below, this Court should adopt Celgene's proposed constructions.

[1] "Ex. __" herein refers to the exhibits to the Declaration of Andrew S. Chalson in support of Celgene's Opening *Markman* Brief.

II. BACKGROUND

Celgene is a world-leading biopharmaceutical company that has discovered and developed several life-saving hematological and cancer therapies. For example, through years of research and development, Celgene developed a novel drug known as "lenalidomide." Celgene currently sells lenalidomide under the brand name Revlimid®. Revlimid® is used to treat certain types of cancerous and precancerous conditions. Specifically, Revlimid® is approved by the U.S. Food and Drug Administration ("FDA") for three indications, two of which are relevant to the current litigation: (1) to treat multiple myeloma ("MM"),[2] in combination with dexamethasone, in patients who have received prior therapy; and (2) to treat transfusion-dependent anemia due to myelodysplastic syndromes ("MDS").[3] The third indication, which pertains to the cancerous condition mantle cell lymphoma, is not currently relevant to this litigation because Natco has not sought FDA approval to market its generic product for that indication. The patents at issue in this *Markman* proceeding cover novel pharmaceutical compositions containing lenalidomide, medical uses of lenalidomide, and crystal forms of lenalidomide.

Defendants Natco Pharma Limited, Arrow International Limited, and Watson Laboratories, Inc. (collectively, "Natco"), are generic pharmaceutical companies. Natco filed an Abbreviated New Drug Application ("ANDA") with the FDA seeking approval to market a generic version of Celgene's Revlimid® product that infringes certain claims of the eighteen patents-in-suit.

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[2] MM is a cancer of certain white blood cells called plasma cells that are normally responsible for producing antibodies. In MM, abnormal plasma cells accumulate in the bone marrow, where they interfere with the production of normal blood cells.

[3] MDS are conditions that involve ineffective production of certain blood cells. MDS patients often develop severe anemia and require blood transfusions, and many also acquire one or more forms of blood-borne cancer.

III. LEGAL STANDARD

Claim construction is an issue of law. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 970-71 (Fed. Cir. 1995). The Federal Circuit has explained that claim construction starts with the words of the claims. *Brookhill-Wilk 1, LLC v. Intuitive Surgical, Inc.*, 334 F.3d 1294, 1298 (Fed. Cir. 2003); *see also Bristol-Myers Squibb Co. v. Immunex Corp.*, 86 F. Supp. 2d 447, 448 (D.N.J. 2000) ("The court should presume that the terms in the claim mean what they say, and, unless otherwise compelled, give full effect to the ordinary and accustomed meaning of claim terms."). Claim terms are deemed to be read "not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc). If the patentee has specifically defined a claim term in the specification, that definition controls. *Id.* at 1316 ("[T]he inventor's lexicography governs."). If not, the words of a claim are given their plain and ordinary meaning to a person of ordinary skill in the art. *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996); *see also 3M Innovative Properties Co. v. Tredegar Corp.*, 725 F.3d 1315, 1321 (Fed. Cir. 2013); *Thorner v. Sony Computer Entm't Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012); *Gilead Scis., Inc. v. Sigmapharm Labs., LLC*, No. 10-4931, slip op. at 14-16 (D.N.J. May 31, 2012). Indeed, "[a]bsent a clear disavowal or contrary definition in the specification or the prosecution history, the patentee is entitled to the full scope of its claim language." *Home Diagnostics, Inc. v. LifeScan, Inc.*, 381 F.3d 1352, 1358 (Fed. Cir. 2004).

IV. ARGUMENT

The parties have identified sixteen disputes affecting nine of the eighteen patents-in-suit. Those nine patents are directed to diverse subject matter that generally falls into two categories: (1) compounds, pharmaceutical compositions, and related methods of use; and (2) solid crystal

forms, or polymorphs, of lenalidomide. The disputed claim language is discussed below, on a patent-by-patent basis, ordered by related subject matter.

A. Compounds, Pharmaceutical Compositions, and Related Methods of Use

1. The '230 and '554 Patents

The '230 patent claims methods of using lenalidomide to treat inflammation, inflammatory disease, autoimmune disease, and oncogenic or cancerous conditions. The '554 patent claims pharmaceutical compositions containing lenalidomide in quantities sufficient to reduce TNFα, improve oncogenic or cancerous conditions, reduce inflammation, or improve autoimmune disease, and also claims methods of using lenalidomide to reduce TNFα.[4]

The parties dispute two separate terms that first appear in the '230 patent.[5] Specifically, the parties dispute whether the terms "said compound has the R-configuration" and "said compound has the S-configuration" exclude racemic mixtures, as described below.

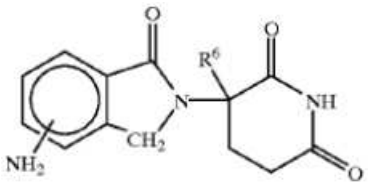
(a) "said compound has the R-configuration" and "said compound has the S-configuration"

The term "said compound has the R-configuration" appears in asserted dependent claims 15 and 24 of the '230 patent, and is bolded in the context of claim 15, which depends from claims 1 and 2:

> 1. A method of treating inflammation, inflammatory disease or autoimmune disease in a mammal which comprises administering thereto an effective amount of a compound of the formula:

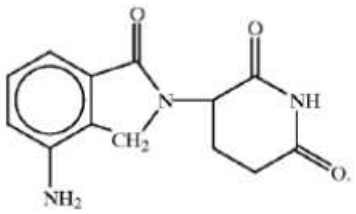
[4] TNFα, or tumor necrosis factor alpha, is one of several small protein molecules that regulate and facilitate communications within and between an organism's cells. Abnormal level of TNFα have been associated with a number of conditions, including inflammatory, infectious, immunological, and malignant diseases.

[5] These terms also appear in the claims of the '554 patent. The parties have agreed that the construction of the terms as they appear in the '230 patent will also apply to the '554 patent. *See* D.I. 248 at 6.



in which R^6 is hydrogen or methyl.

2. The method according to claim 1 in which said compound has the formula:



15. The method according to claim 2 in which **said compound has the R-configuration**.

(Ex. 1 at 28:15-16.) The term "said compound has the S-configuration" appears in asserted dependent claims 16 and 25 of the '230 patent, and is bolded in the context of claim 16, which also depends from claims 1 and 2:

16. The method according to claim 2 in which **said compound has the S-configuration**.

(Ex. 1 at 28:17-18.) The parties agree that "configuration" in these terms refers to "isomer." Isomers are molecules with the same molecular formula, but with different three-dimensional structures. In other words, isomers contain the same number of atoms of each element, but have different arrangements of those atoms in space. In this case, the type of isomers at issue are known as stereoisomers. In short, stereoisomers are compounds that are mirror images of each other. As such, they cannot be superimposed on top of one another, much like a person's right and left hand. *See, e.g.*, *In re Armodafinil Patent Litig.*, No. 10-007, 2013 U.S. Dist. LEXIS 46572, at *12-14 (D. Del. Mar. 30, 2013).

Under Celgene's constructions, the compound contains ***at least some of*** the specified R- or S-isomer. Under Natco's narrower constructions, the compound contains ***only*** the specified R- or S-isomer. Celgene's constructions are consistent with the intrinsic evidence, while Natco's litigation-contrived constructions improperly read limitations into the claims where none exist, exclude embodiments, and fail to give the claims their full scope. Specifically, because Natco's ANDA Products contain a racemate, or racemic mixture—that is, a mixture containing both the R- and S-isomers (*see id.*)—Natco seeks to exclude such mixtures from the claims:

Term	Celgene's construction	Natco's construction
"Said compound has the R-configuration"	"Said compound has the R-isomer"	"the stereochemical configuration of the compound is all or substantially all the R-isomer, thus excluding a compound that is a racemic mixture"
"Said compound has the S-configuration"	"Said compound has the S-isomer"	"the stereochemical configuration of the compound is all or substantially all the S-isomer, thus excluding a compound that is a racemic mixture"

When, as here, the patentee has not provided an explicit definition of a claim term, the words of a claim are given their plain and ordinary meaning to a person of ordinary skill in the art. *See Vitronics*, 90 F.3d at 1582. Here, "said compound has the R-configuration" means "said compound has the R-isomer," and "said compound has the S-configuration" means "said compound has the S-isomer." Notably, the claims do not use the word "is"—they use the word "has," which conveys the existence of the claimed isomer, but says nothing about whether the compound contains ***nothing but*** the claimed isomer. As such, the claims support Celgene's constructions, not Natco's.

The specification also supports Celgene's constructions by making clear that the racemate is within the scope of the inventions recited by the claims:

> The compounds of the present invention possess a center of chirality and can exist as optical isomers. ***Both the racemates of these isomers and the individual isomers themselves***, as well as diastereomers when there are two chiral centers, ***are within the scope of the present invention.*** The racemates can be used as such or can be separated into their individual isomers mechanically as by chromatography using a chiral adsorbent.

(Ex. 1 at 8:1-8 (emphasis added).) Thus, the specification makes clear that racemates are within the scope of ***each*** claimed invention, including the claims that include these disputed claim terms. Absent a clear and unambiguous disavowal of claim scope, the specification supports Celgene's constructions. *See Home Diagnostics*, 381 F.3d at 1358. Here, no such disavowal exists. In other words, nothing in the intrinsic record, including the prosecution history, contradicts Celgene's proposed constructions.

By contrast, Natco's proposed constructions improperly require the compound to contain ***only*** the specified isomer, and to exclude the racemate. This is contrary to the specification, which explicitly states that "the racemates . . . are within the scope of the present invention." (Ex. 1 at 8:2-5.) It also ignores that "a construction that would not read on the preferred embodiment . . . would rarely if ever [be] correct and would require highly persuasive evidentiary support." *Chimie v. PPG Indus.*, 402 F.3d 1371, 1377 (Fed. Cir. 2005) (quotations omitted); *see also Gilead*, slip op. at 11 ("A claim construction that would result in claims that do not cover the preferred embodiments of the patent is illogical."). As noted above, there is no clear and unambiguous disavowal of claim scope that could justify Natco's limited construction. *See Home Diagnostics*, 381 F.3d at 1358. Thus, any construction that limits the claim terms to ***only*** the specified isomers must fail.

In short, Natco apparently seeks to construe the word "has" to mean "is all or substantially all," to read an exclusionary limitation into the claims that will allegedly help it to avoid infringement. But Natco can point to nothing in the intrinsic evidence to support such a

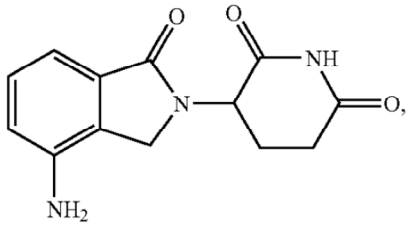
tortured reading of the claims. Accordingly, Natco's proposal should be rejected, and the Court should construe these terms in accordance with Celgene's proposed constructions.

2. The '415 Patent

The '415 patent claims the lenalidomide compound, as well as unit dosage forms containing lenalidomide. The parties dispute one term in the '415 patent. Specifically, the parties dispute whether and to what extent the patentee has provided governing lexicography for "unit dosage form."

(a) "unit dosage form"

The term "unit dosage form" appears in asserted claims 1-3 and 5 of the '415 patent, and is bolded in the context of independent claim 1:

> 1. A **unit dosage form** comprising an amount of a compound of the formula:
>
> 
>
>
> or an acid addition salt thereof, and a pharmaceutically acceptable carrier, diluent, or excipient, wherein the amount is from 1 mg to 100 mg.

(Ex. 8 at 28:65-29:13.) The parties agree that the specification provides a definition of "unit dosage form," but disagree on the portion of the specification that the Court should consider as lexicography. The parties' proposed definitions are as follows:

"unit dosage form"	
Celgene's construction	**Natco's construction**
"Physically discrete units suitable as a unitary dosage"	"Physically discrete units suitable as a unitary dosage containing a predetermined quantity of active material calculated to produce the desired therapeutic effect"

The intrinsic record—including the specification and prosecution history—supports Celgene's proposed construction. The specification of the '415 patent recites as follows:

> The compositions preferably are formulated in ***unit dosage form***, **meaning physically discrete units suitable as a unitary dosage**, or a predetermined fraction of a unitary dose to be administered in a single or multiple dosage regimen to human subjects and other mammals, each unit containing a predetermined quantity of active material calculated to produce the desired therapeutic effect in association with a suitable pharmaceutical excipient.

(Ex. 8 at 9:18-25 (emphasis added).) The specification supports Celgene's construction of the claim term because, as shown above, the term "unit dosage form" is defined in the specification as "meaning physically discrete units suitable as a unitary dosage." The remainder of the recited language is ***not*** lexicography for "unit dosage form."

As an initial matter, the parties ***agree*** that the clause that reads "or a predetermined fraction of a unitary dose to be administered in a single or multiple dosage regimen to human subjects and other mammals," and the final phrase in the above-quoted language, "in association with a suitable pharmaceutical excipient," are ***not*** lexicography for "unit dosage form." As such, the parties' dispute centers on whether the phrase "containing a predetermined quantity of active material calculated to produce the desired therapeutic effect" is part of the lexicography for "unit dosage form."[6] A review of the intrinsic record, in particular the prosecution history of the '415 patent, reveals that it is not.

In fact, the prosecution history supports Celgene's construction of "unit dosage form." It also reveals the impropriety of Natco's attempt to read a "therapeutic effect" limitation into the claims. Specifically, the applicants originally sought to use the phrase "pharmaceutical

[6] It is unclear why Natco has selected only that phrase from the specification as part of its proposed construction. Indeed, Natco was unable to identify any connection between that phrase and its noninfringement or invalidity contentions when the parties met and conferred before submitting the Joint Statement.

composition" in place of "unit dosage form" in what is now claim 1 of the '415 patent. The examiner rejected that claim as not enabled after finding that the specification lacked support for a "pharmaceutical composition," which, according to the examiner, "by definition is a composition containing a therapeutically effective but nontoxic amount of the compound." (Ex. 10, 4/6/10 Non-final Rejection at 2.) The examiner did, however, note that the specification contained support for "unit dosage forms," which "do not necessarily contain a *therapeutically* effective amount since multiple units can be taken to make the therapeutically effective amount." (*Id.*) In other words, the examiner explicitly concluded that a "unit dosage form" does ***not*** require therapeutic efficacy. Nevertheless, Natco seeks to read such a requirement into that term. This is improper. *See Phillips*, 415 F.3d at 1323; *Chimie*, 402 F.3d at 1378-79. The Court should reject Natco's proposal and adopt Celgene's construction of "unit dosage form."

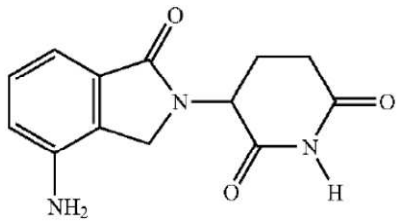
3. The '740 Patent

The '740 patent claims methods of using lenalidomide to treat MDS. The parties dispute two related terms in the '740 patent. Specifically, the parties dispute whether the terms "administered cyclically" and "administered in a cycle" require construction, and if so, whether they require the addition of several unsupported limitations to the claims.

(a) "administered cyclically" and "administered in a cycle"

"Administered cyclically" appears in asserted dependent claims 18-19 and 21. Each of those claims depends, directly or indirectly, from claim 1. Claim 1 and representative claim 18 recite as follows:

> 1. A method of treating a myelodysplastic syndrome, which comprises administering to a patient in need thereof about 5 to about 50 mg per day of 3-(4-amino-1-oxo-1,3- 65 dihydro-isoindol-2-yl)-piperidine-2,6-dione having the formula:



or a pharmaceutically acceptable salt, solvate or stereoisomer thereof.

18: The method of claim 1, wherein the compound is **administered cyclically**.

(Ex. 3 at 29:63-30:12; *id.* at 30:63-64.) "Administered in a cycle" appears in asserted dependent claim 29, which also depends from claim 1:

29: The method of claim 1, wherein the compound is **administered in a cycle** of about 16 weeks and about once or twice every day.

(*Id.* at 31:24-26.) The parties propose the following:

Term	Celgene's construction	Natco's construction
"administered cyclically"	No construction required	"Administered according to a pre-determined dosing regimen that includes administering lenalidomide for an initial period, followed by a pre-determined treatment-free interval, and repeating this sequential administration"
"administered in a cycle"	No construction required	"Administered according to a pre-determined dosing regimen that includes administering lenalidomide for an initial period, followed by a pre-determined treatment-free interval, and repeating this sequential administration"

These terms do not require construction. Instead, Celgene contends that these terms are comprised of plain and ordinary words that mean just what they say. Indeed, claim construction "is not an obligatory exercise in redundancy." *U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d

1554, 1568 (Fed. Cir. 1997). Rather, "[c]laim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims, for use in the determination of infringement." *Id.* Thus, it is not necessary for the Court to construe terms with well-understood meanings.

Here, the terms "administered cyclically" and "administered in a cycle" are not ambiguous. They have well-understood, ordinary meanings that are consistent with the specification and the claims. The claims refer to lenalidomide that is "administered cyclically" or "administered in a cycle." (*See* Ex. 3 at 29:63-30:12, 30:63-64, & 31:24-26.) These terms are not defined anywhere in the intrinsic record. As such, they are entitled to their plain and ordinary meaning to one of ordinary skill in the art. *Vitronics*, 90 F.3d at 1582; *Gilead*, slip op. at 15-16 (finding that "crystallization solvent" should be given its plain and ordinary meaning because the phrase was not specifically defined in the claims or specification).

With respect to the "administered" portion of these terms, this District recently affirmed that "'administering' requires no further construction as it has a well-understood meaning to persons of ordinary skill in the art." *See, e.g.*, *Prometheus Labs. Inc. v. Roxane Labs., Inc.*, No. 11-230, 2013 U.S. Dist. LEXIS 135284, at *12 (D.N.J. Sept. 23, 2013). Natco's proposed construction merely repeats the word "administered." Natco, therefore, cannot dispute that the word has a well-understood meaning. As such, the parties' dispute appears to center around the words "cyclically" and "cycle." Celgene submits that those words have their ordinary meaning, and do not require construction.

The Federal Circuit has explained that "the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted

meaning of commonly understood words. . . . In such circumstances, general purpose dictionaries may be helpful." *Phillips*, 415 F.3d at 1314; *see also Vitronics*, 90 F.3d at 1584 n.6. Here, general-purpose medical dictionaries support the proposition that "cyclically" and "cycle" have well-understood meanings and do not require construction, let alone the specific limitations regarding a "pre-determined dosing regimen" and a "pre-determined treatment-free interval" that Natco seeks to read into the claims. (*See* Ex. 11, Taber's Cyclopedic Medical Dictionary, 19th ed. (2001) at 518, 520; Ex. 12, Stedman's Medical Dictionary, 27th ed. (2000) at 442-44.) Rather, such dictionaries broadly define "cycle" as "a recurring series of events," or a "recurring period of time," and "cyclic" as "periodic." (*See id.*) Nothing in the intrinsic record, including the prosecution history, contradicts these broad, well-understood meanings. The Court should therefore deny Natco's proposed constructions for this reason alone.

The Court should also reject Natco's proposed constructions because they seek to read embodiments ***out of*** the claims. Specifically, the specification states that:

> In ***certain embodiments***, the prophylactic or therapeutic agents of the invention are cyclically administered to a patient. ***Cycling therapy involves the administration of a first agent for a period of time, followed by the administration of the agent and/or the second agent for a period of time and repeating this sequential administration***.

(Ex. 3 at 19:5-10 (emphasis added).) In other words, the specification explicitly contemplates, as within the scope of the claims, "cycling therapy" that includes the administration of agent "A" for a period of time, followed by administration of agents "A" and "B" for a period of time, and repeating this "sequential administration." (*Id.*) In this embodiment, agent "A" would be administered throughout the "cycling therapy." Natco's proposal, however, requires "a pre-determined treatment-free interval" that would read this embodiment out of the claims. As such, it is improper and must fail for this reason as well. *See Chimie*, 402 F.3d at 1377 ("[A]

construction that would not read on the preferred embodiment . . . would rarely if ever [be] correct and would require highly persuasive evidentiary support.") (quotations omitted); *see also Gilead*, slip op. at 11 ("A claim construction that would result in claims that do not cover the preferred embodiments of the patent is illogical.").

Natco's proposed construction must also fail to the extent that it seeks to read embodiments and/or examples ***into*** the claims as narrowing limitations. Specifically, Natco seeks to read into the claims an embodiment and an example that include one to three "weeks of rest." (*See, e.g.*, Ex. 3 at 19:14-18, 28:57-67.) The Federal Circuit has repeatedly held, however, that embodiments are not definitions. *See Phillips*, 415 F.3d at 1323-24; *Tex. Instruments, Inc. v. U.S. Int'l Trade Comm'n*, 805 F.2d 1558, 1563 (Fed. Cir. 1986) ("This court has cautioned against limiting the claimed invention to preferred embodiments or specific examples in the specification."); *see also Home Diagnostics*, 381 F.3d at 1358 (patentee is entitled to full scope of claims absent "a clear disavowal or contrary definition"). Moreover, even if the embodiment and example that Natco relies upon were definitions—they are not—nothing in the specification or any other part of the intrinsic record supports the "pre-determined dosing regimen" and "pre-determined treatment-free interval" language that Natco seeks to read into the claims. Natco has made up that language out of whole cloth. For this additional reason, the Court should reject Natco's proposed construction of these terms.

For each of the foregoing reasons, the Court should reject Natco's attempt to construe these plain and ordinary words.

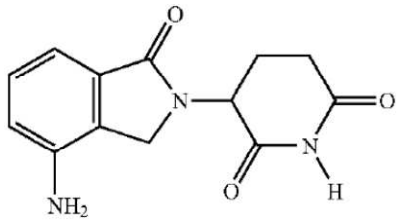
4. The '569 Patent

The '569 patent claims methods of using lenalidomide to treat MM. The parties dispute one term in the '569 patent. Specifically, the parties dispute whether the term "cyclically

administering" requires construction, and if so, whether that term requires the addition of unsupported limitations to the claims.

(a) "cyclically administering"

"Cyclically administering" appears in independent claim 1 of the '569 patent, as follows:

> 1. A method of treating multiple myeloma, which comprises **cyclically administering** to a patient having multiple myeloma about 5 to about 25 mg per day of a compound of the formula:
>
> 
>
>
> or a pharmaceutically acceptable salt thereof, for 21 consecutive days followed by seven consecutive days of rest from administration of said compound during a 28 day cycle, in combination with 40 mg per day of dexamethasone.

(Ex. 6 at 38:64-39-12; *id.* at Certificate of Correction.) The parties propose the following:

"cyclically administered"	
Celgene's construction	**Natco's construction**[7]
No construction required	"Administering lenalidomide and dexamethasone in combination for 21 consecutive days"

Like the similar terms in the '740 patent, this term is composed of plain and ordinary words that mean just what they say. It does not require construction. Once again, however, Natco seeks to read limitations into two plain and ordinary words that are not defined anywhere in the intrinsic record. There is also no clear and unmistakable disavowal of claim scope that

[7] Notably, Natco has proposed drastically different meanings for this term, "cyclically administering," and a nearly identical term, "administered cyclically," in the '740 patent. It defies common sense that terms composed of nearly identical non-technical words can have such divergent meanings.

would support reading Natco's proposed limitations into the claims. Accordingly, the Court should reject Natco's proposed construction.

Specifically, Natco seeks to read a narrowing limitation that would require "[a]dministering lenalidomide and dexamethasone in combination for 21 consecutive days" into a broadly worded claim that does not require such specific combination therapy. Indeed, there is nothing in claim 1, or anywhere else in the intrinsic record, that requires Natco's "in combination for 21 consecutive days" limitation. Natco's proposal must fail for this reason alone. *See McCarty v. Lehigh Valley, R.R.*, 160 U.S. 110, 116 (1895) ("[W]e know of no principle of law which would authorize us to read into a claim an element which is not present.").

Natco also ignores that when the applicants for the '569 patent wanted to specify a particular, narrow dosing regimen that required administration of lenalidomide and/or dexamethasone on certain days, they knew how to do so. For example, claim 13 requires dosing lenalidomide "for 21 consecutive days" and dexamethasone "on days 1-4 every 28 days." (Ex. 6 at 40:7-25.) Natco seeks to read a similar, specific limitation into claim 1, even though claim 1 is broader on its face than claim 13 with respect to the timing of the administration of dexamethasone. Natco's proposed construction is improper for this reason as well.

For the foregoing reasons, the Court should reject Natco's construction of "cyclically administering," which requires no construction.

B. Crystal Forms of Lenalidomide

The '800 patent family, which also includes the '357, '219, and '598 patents, claims certain crystal forms, or polymorphs, of lenalidomide, and compositions containing those forms. The parties dispute the construction of ten terms in those patents, as discussed below.

In general, polymorphism is the ability of a solid material to exist in more than one crystal form. Atwood ¶ 14. The composition of each crystal form of a given material can differ

based on several factors, including the level of hydration or solvation. *Id.* This means that each crystal form can be associated with differing amounts of water or another solvent. *Id.* Crystal forms that do not contain any water or other solvent are often referred to as "unsolvated." *Id.* Crystal forms that are associated with water are referred to as hydrates. *Id.* Such forms are named based on the number of water molecules associated with each molecule of the compound forming the hydrate. *Id.* For example, a crystal form that contains approximately one molecule of water for every molecule of the given compound could be referred to as a monohydrate. *Id.*

According to the specifications of the '800, '357, '219, and '598 patents, the term "polymorphs" is used synonymously with crystal forms. *Id.* at 15. Polymorphs can be "detected, identified, classified, and characterized using well known techniques such as, but not limited to, differential scanning calorimetry (DSC), thermogravimetry (TGA), X-ray powder diffractometry (XRPD), single crystal X-ray diffractometry, vibrational spectroscopy, solution calorimetry, solid state nuclear magnetic resonance (NMR), infrared (IR) spectroscopy, Raman spectroscopy, hot stage optical microscopy, scanning electron microscopy (SEM), electron crystallography and quantitative analysis, particle size analysis (PSA), surface area analysis, solubility, and rate of dissolution." (*See, e.g.*, Ex. 4 at 4:13-23.)

1. The '800 Patent

The parties dispute two terms that first appear in the '800 patent. *First*, the parties dispute whether the chemical name for lenalidomide, "3-(4-amino-l-oxo-l,3 dihydro-isoindol-2-yl)-piperidine-2,6-dione," requires limitations regarding the process by which the lenalidomide is manufactured. *Second*, they dispute whether the term "hemihydrate" requires an exact ratio of water to the compound forming the hydrate, and whether "hemihydrate" is limited to "the Form B polymorphic form" exemplified in the specification.

(a) "3-(4-amino-l-oxo-l,3 dihydro-isoindol-2-yl)-piperidine-2,6-dione"[8]

The term "3-(4-amino-l-oxo-l,3 dihydro-isoindol-2-yl)-piperidine-2,6-dione" appears in asserted claims 1-14 of the '800 patent, and is bolded in independent claim 1:

> 1. Crystalline **3-(4-amino-1-oxo-1,3 dihydro-isoindol-2-yl)-piperidine-2,6-dione** hemihydrate.

(Ex. 4 at 22:14-15.) The parties propose the following:

"3-(4-amino-l-oxo-l,3 dihydro-isoindol-2-yl)-piperidine-2,6-dione"	
Celgene's construction	**Natco's construction**
No construction required	"lenalidomide, prepared according to the methods described in U.S. Patent Nos. 6,281,230 and 5,635,517"

"3-(4-amino-l-oxo-l,3 dihydro-isoindol-2-yl)-piperidine-2,6-dione" is a chemical name. *See* Byrn at ¶¶ 18, 22; Atwood at ¶ 20. Chemical names are designed to have well-understood meanings to those of ordinary skill in the art to facilitate the description of molecules using words. *See* Byrn at ¶ 22; Atwood at ¶ 20. Each part of this chemical name describes a component of the molecule and where it appears in the molecule. *Id.* For example, the chemical name uses the word "piperidine." Anyone of ordinary skill in the art knows that a piperidine is a six-membered ring containing five methylene units and one nitrogen atom, and has the following structure:  *Id.*

Thus, "3-(4-amino-l-oxo-l,3 dihydro-isoindol-2-yl)-piperidine-2,6-dione" is one of the most specific ways possible to express the molecule being referred to. Byrn at ¶ 24. Indeed, the parties agree that "3-(4-amino-l-oxo-l,3 dihydro-isoindol-2-yl)-piperidine-2,6-dione" refers to the molecule known as "lenalidomide." Accordingly, the term does not need construction.

[8] This term also appears in the claims of the '357, '219, and '598 patents. The parties have agreed that the construction of the term as it appears in the '800 patent will also apply to the other patents in the same family. *See* D.I. 248 at 6.

Natco, however, seeks to read additional limitations into the claims that simply do not exist, and that find no support in the intrinsic record. Specifically, Natco seeks to require that the drug product lenalidomide be made according to some specific process. This is improper. *See Vanguard Prods. v. Parker Hannifin Corp.*, 234 F.3d 1370, 1372 (Fed. Cir. 2000) ("The method of manufacture, even when cited as advantageous, does not itself convert product claims into claims limited to a particular process . . . . A novel product that meets the criteria of patentability is not limited to the process by which it was made."). In fact, the Federal Circuit has repeatedly warned of "the danger of reading limitations from the specification into the claim." *See, e.g.*, *Phillips*, 415 F.3d at 1323.

In a case involving strikingly similar facts, the Federal Circuit vacated a district court's importation of a process limitation into a composition claim. *Sanofi-Aventis U.S. LLC v. Sandoz, Inc.*, 345 Fed. Appx. 594, 598-99 (Fed. Cir. 2009). There, the Federal Circuit noted that the "specification never asserts that HPLC is *required* to obtain optically pure oxaliplatin. It characterizes HPLC as an 'illustrative method' and a 'representative process' by which the claimed compound 'may be prepared.'" *Id.* at 598. Accordingly, the Federal Circuit held that "nothing in the specification limits the invention to optically pure oxaliplatin purified using HPLC." *Id.* Here, the specification ***never*** states that the methods described in the '230 and '517 patents are ***required***. Those patents simply describe ways in which lenalidomide "***can*** be prepared." (Ex. 4 at 4:66-5:1 (emphasis added).) In other words, nothing in the claims, the specification, or the prosecution history limits the invention to lenalidomide prepared using any particular process.

Consequently, "3-(4-amino-l-oxo-l,3 dihydro-isoindol-2-yl)-piperidine-2,6-dione" is "lenalidomide," without any limitation as to how the compound is prepared. The Court should reject Natco's attempt to read nonexistent, litigation-inspired limitations into the claims.

(b) "hemihydrate"

The term "hemihydrate" appears in asserted Claims 1-14 of the '800 patent, and is shown bolded in independent claim 1 and dependent claim 10, which are representative:

> 1. Crystalline 3-(4-amino-1-oxo-1,3 dihydro-isoindol-2-yl)-piperidine-2,6-dione **hemihydrate**.
>
> 10. The **hemihydrate** of claim 1 having between approximately 0.46 and approximately 0.59 moles of water per mole of 3-(4-amino-1-oxo-1,3 dihydro-isoindol-2-yl)-piperidine-2,6-dione.

(Ex. 4 at 22:14-15, 22:40-43; *see also id.* at 22:16-39, 22:44-57.)

The parties' proposed constructions are as follows:

"hemihydrate"	
Celgene's construction	**Natco's construction**
"A hydrate containing approximately half a mole of water to one mole of the compound forming the hydrate"	"a solid crystalline form of lenalidomide containing one water molecule for every two molecules of 3-(4-amino-1-oxo-1,3 dihydro-isoindol-2-yl)-piperidine-2,6-dione, formally associated with one another within the unit cell in the solid crystalline structure, and which crystal form is specifically identified in the '800 patent as the Form B polymorphic form, and demonstrated in TGA, Karl Fischer analysis, powder X-ray diffraction patterns, IR spectra, and/or DSC analysis, as distinguishable from other polymorphs, such as the anhydrous form"

Celgene proposes that the term "hemihydrate" means "a hydrate containing approximately half a mole of water to one mole of the compound forming the hydrate." When, as here, the patentee has not provided an explicit definition, the words of the claim are given their plain and ordinary meaning to a person of ordinary skill in the art in the context of the

intrinsic evidence. *See Medrad, Inc. v. MRI Devices Corp.*, 401 F.3d 1313, 1319 (Fed. Cir. 2005); *Vitronics*, 90 F.3d at 1582. Celgene's construction is the plain and ordinary meaning of "hemihydrate," as understood by one of ordinary skill in the art. *See* Byrn at ¶¶ 25-28; Atwood at ¶ 20. This ordinary meaning is consistent with the use of the term in the intrinsic evidence.

For example, claim 10 refers to "[t]he hemihydrate of claim 1 having between approximately 0.46 and approximately 0.59 moles of water per mole of 3-(4-amino-1-oxo-1,3 dihydro-isoindol-2-yl)-piperidine-2,6-dione." (Ex. 4 at 22:40-43.) It is clear from this claim that, according to the patentee, "hemihydrate" encompasses at least a hydrate that contains from approximately 0.46 to 0.59 moles of water to one mole of the compound forming the hydrate. The specification also supports such approximate molar ratios. (*See, e.g.*, Ex. 4 at 6:67-7:5 & Figs. 9, 37, 38, 39.) This is consistent with the ordinary meaning to one of skill in the art. *See* Byrn at ¶¶ 25-28; Atwood at ¶ 20. Nothing in the intrinsic record, including the prosecution history, contradicts Celgene's proposed construction. Accordingly, Celgene's construction should be adopted.

By contrast, Natco proposes that the term means:

> A solid crystalline form of lenalidomide containing one water molecule for every two molecules of 3-(4-amino-1-oxo-1,3 dihydro-isoindol-2-yl)-piperidine-2,6-dione, formally associated with one another within the unit cell in the solid crystalline structure, and which crystal form is specifically identified in the '800 patent as the Form B polymorphic form, and demonstrated in TGA, Karl Fischer analysis, powder X-ray diffraction patterns, IR spectra, and/or DSC analysis, as distinguishable from other polymorphs, such as the anhydrous form.[9]

[9] To the extent that Natco's proposed definition includes the claim terms that immediately precede "hemihydrate" in claim 1—"crystalline" and "3-(4-amino-1-oxo-1,3 dihydro-isoindol-2-yl)-piperidine-2,6-dione"—it is redundant and nonsensical and should be rejected for this reason alone.

Natco's proposed construction is improper at least because it requires a limitation that is nowhere in the intrinsic record. Specifically, Natco seeks to require that the water and the compound forming the hemihydrate are "formally associated with one another within the unit cell in the solid crystalline structure." This limitation is never mentioned in the claims, the specification, or the prosecution history. It is therefore improper. *See McCarty*, 160 U.S. at 116 ("[W]e know of no principle of law which would authorize us to read into a claim an element which is not present.").

Natco's proposed construction is also improper because it requires an additional limitation that is contradicted by the intrinsic record. Natco's exclusionary requirement that the crystal form must be "demonstrated in TGA, Karl Fischer analysis, powder X-ray diffraction patterns, IR spectra, and/or DSC analysis, as distinguishable from other polymorphs, such as the anhydrous form," improperly limits the claims to particular crystal forms that are analyzed using specific, exemplary techniques. There is nothing in the intrinsic evidence that suggests that the claimed hemihydrate is limited by any analytical technique. Indeed, when the patentee sought to limit the claims to cover a "hemihydrate" distinguished using specific analyses, it claimed such hemihydrates and analyses explicitly. (*See* Ex. 4 at 22:16-39, 22:44-57.)

Finally, Natco's construction is improper because it seeks to import an embodiment from the specification into the claims. The Federal Circuit has repeatedly held that specific embodiments are not definitions. *See, e.g.*, *Phillips*, 415 F.3d at 1323-24; *Tex. Instruments*, 805 F.2d at 1563. Natco seeks to define "hemihydrate" as the "crystal form [that] is specifically identified in the '800 patent as the Form B polymorphic form." Form B is an embodiment that is encompassed by the claims. (*See* Ex. 4 at 5:36-40 ("Another embodiment of the invention encompasses Form B of 3-(4-amino-1-oxo-1,3 dihydro-isoindol-2-yl)-piperidine-2,6-dione.

Form B is a hemihydrated, crystalline material that can be obtained from various solvent systems.").) Celgene does not dispute that its proposed construction is broad enough to cover Form B, but there is nothing in the intrinsic evidence that supports limiting "hemihydrate" to mean only that one embodiment, as Natco suggests.

Accordingly, the Court should reject Natco's proposal and adopt Celgene's construction of hemihydrate: "a hydrate containing approximately half a mole of water to one mole of the compound forming the hydrate."

2. The '357, '219, and '598 Patents

These patents issued in the same family as the '800 patent. Each patent claims unsolvated crystal forms of lenalidomide and pharmaceutical compositions containing those forms. The parties have presented eight separate disputes pertaining to these patents. *See* D.I. 248, Ex. A at 11-27. Those disputes fall into two major categories. *First*, the parties dispute whether the term "Form A" requires reading into the claims myriad limitations from the specification. *Second*, the parties dispute whether various lengthy phrases—some that contain the term "Form A" and others that do not—require construction at all and, if so, if those terms should be construed to mean the same thing as Natco's proposed construction of "Form A." Specifically, the parties dispute the following language (with "Form A" highlighted each time it appears):

Term	Celgene's construction	Natco's construction
"Form A"	"A polymorphic form of 3-(4-amino-1-oxo-1,3 dihydro-isoindol-2-yl)-piperidine-2,6-dione that can be distinguished from other forms"	"The lenalidomide crystal form described in the specification as Form A, having all of the characteristics assigned to Form A in the specification"

Term	Celgene's construction	Natco's construction
"unsolvated crystalline Form A of 3-(4-amino-1-oxo-1,3 dihydro-isoindol-2-yl)-piperidine-2,6-dione, which has a differential scanning calorimetry thermogram having an endotherm at approximately 270° C"	No construction required	"The lenalidomide crystal form described in the specification as Form A, having all of the characteristics assigned to Form A in the specification"
"unsolvated crystalline 3-(4-amino-1-oxo-1,3 dihydro-isoindol-2-yl)-piperidine-2,6-dione having an X-ray powder diffraction pattern comprising peaks at approximately 8, 14.5, 16, 17 .5, 20.5, 24, and 26 degrees 2θ"	No construction required	"The lenalidomide crystal form described in the specification as Form A, having all of the characteristics assigned to Form A in the specification"
"unsolvated crystalline Form A of 3-(4-amino-1-oxo-1,3 dihydro-isoindol-2-yl)-piperidine-2,6-dione"	No construction required	"The lenalidomide crystal form described in the specification as Form A, having all of the characteristics assigned to Form A in the specification"
"an unsolvated crystalline Form A of 3-(4-amino-1-oxo-1,3 dihydro-isoindol-2-yl)-piperidine-2,6-dione having a differential scanning calorimetry thermogram endotherm at approximately 270° C"	No construction required	"The lenalidomide crystal form described in the specification as Form A, having all of the characteristics assigned to Form A in the specification"
"an unsolvated crystalline form of 3-(4-amino-1-oxo-1,3 dihydro-isoindol-2-yl)-piperidine-2,6-dione having a differential scanning calorimetry thermogram endotherm at approximately 270° C and an X-ray powder diffraction pattern comprising peaks at approximately 8, 14.5, and 16 degrees 2θ and a thermogravimetric analysis curve indicative of an unsolvated material"	No construction required	"The lenalidomide crystal form described in the specification as Form A, having all of the characteristics assigned to Form A in the specification"
"an unsolvated crystalline form of 3-(4-amino-1-oxo-1,3 dihydro-isoindol-2-yl)-piperidine-2,6-dione having an X-ray powder diffraction pattern comprising peaks at approximately 8, 14.5, 16, 17.5, 20.5, 24, and 26 degrees 2θ"	No construction required	"The lenalidomide crystal form described in the specification as Form A, having all of the characteristics assigned to Form A in the specification"

Term	Celgene's construction	Natco's construction
"an unsolvated crystalline form of 3-(4-amino-1-oxo-1,3 dihydro-isoindol-2-yl)-piperidine-2,6-dione, which has a differential scanning calorimetry thermogram having an endotherm at approximately 270° C"	No construction required	"The lenalidomide crystal form described in the specification as Form A, having all of the characteristics assigned to Form A in the specification"

As evidenced in the above chart, Natco proposes that "Form A," and ***all*** of the other disputed phrases, require reading dozens of limitations pertaining to "Form A" from the specification into the claims, regardless of whether those phrases, and the claims in which they appear, actually recite the term "Form A." As explained below, Natco's proposed constructions violate several bedrock principles of claim construction, and the Court should reject each one.

Before discussing those disputes, however, some background regarding three undisputed technical terms in the disputed claim language may be useful. *First*, differential scanning calorimetry, or DSC, is an analytical technique that can be used to ascertain the temperature at which a sample experiences a phase transition. Atwood ¶ 16. For example, DSC can be used to determine the temperature at which a solid sample melts to a liquid. *Id.* Because melting is an endothermic transition—it involves the absorption of energy in the form of heat—skilled artisans would expect to see a downward peak, or "endotherm," on a DSC thermogram (the charted results of a DSC analysis) when a sample melts. *Id.* The parties have agreed that "endotherm" means "the position of a peak on a DSC thermogram representing an endothermic event such as a melting point, rather than the onset or the endset of the peak." D.I. 248, Ex. A at 5.

Second, X-ray powder diffraction, or XRPD, is an analytical technique that can be used to observe the manner in which a crystalline substance diffracts X-rays. Atwood ¶ 17. The resulting "pattern" has "peaks" at certain intervals that are measured in units called "degrees 2θ."

Id. An example of an XRPD pattern can be seen on the cover of each patent in the '800 patent family. (*See, e.g.*, Ex. 4 at Cover.)

Third and finally, thermogravimetric analysis, or TGA, is an analytical technique that measures changes in physical and chemical properties of a sample as a function of increasing temperature. Atwood ¶ 18. The results of TGA are often represented as a graphical curve that may indicate whether a sample is an unsolvated material. *Id.*

With that background in mind, Celgene turns to the disputes identified in the above chart.

(a) "Form A"

The term "Form A" appears in each asserted claim of the '357 patent, and asserted claims 1-4 and 14 of the '598 patent. It does ***not*** appear in any claims of the '219 patent, or in asserted claims 5-13 and 15-23 of the '598 patent.

Representative claim 1 of the '357 patent recites as follows:

> 1. The unsolvated crystalline **Form A** of 3-(4-amino-1-oxo-1,3 dihydro-isoindol-2-yl)-piperidine-2,6-dione, which has a differential scanning calorimetry thermogram having an endotherm at approximately 270° C.

(Ex. 6 at 22:29-32.)

"Form A" is simply a reference term or label that one of ordinary skill in the art would understand as not limiting the scope of the claims in which it appears. *See* Atwood ¶¶ 25-27; *Pfizer Inc. v. Dr. Reddy's Labs., Ltd.*, No. 09-943, 2011 U.S. Dist. LEXIS 19180, at *9-19 (D. Del. Feb. 28, 2011) (construing "Form" terms as "terms of convenience"). In other words, as Celgene proposes, the term "Form A" simply refers to any crystal form of 3-(4-amino-1-oxo-1,3 dihydro-isoindol-2-yl)-piperidine-2,6-dione, or lenalidomide, that can be distinguished from other forms based on the explicit limitations recited in each claim. *See* Atwood ¶¶ 25-27.

The Court should adopt Celgene's proposed construction for at least three reasons. *First*, when faced with nearly identical disputes, courts in this Circuit have construed "Form" terms exactly as Celgene has proposed here. *See, e.g.*, *Bristol-Myers Squibb Co. v. Mylan Pharms., Inc.*, No. 09-651, 2012 U.S. Dist. LEXIS 68802, at *7-13 (D. Del. May 16, 2012) (construing "Form" terms to mean "a polymorphic crystal form of [the drug in question] that can be distinguished from other forms"); *Pfizer*, 2011 U.S. Dist. LEXIS 19180, at *18 (construing "Form" terms as "terms of convenience"). In *Bristol-Myers*, like here, the parties' dispute concerned "whether the 'Form' terms incorporate by reference the entirety of the XRPD and DSC patterns set forth in the Figures (as Defendants propose) or whether, instead, the various 'Form' terms should simply be viewed as shorthand references whose defining characteristics are supplied by the particular XRPD and/or DSC values expressly recited in the claims (as Plaintiffs propose)." *Bristol-Myers*, 2012 U.S. Dist. LEXIS 68802, at *9-10.

The *Bristol-Myers* Court adopted Plaintiffs' construction after finding "no basis for importing the Figures into those claims that do not expressly reference any Figures," and noting that "Defendants' construction ignores the context of the surrounding claim language and improperly imports limitations from the Figures into the claims." *Id.* at *10-11 (citing *IGT v. Bally Gaming, Intl'l, Inc.*, 659 F.3d 1109, 1117 (Fed. Cir. 2011) and *MBO Labs., Inc. v. Becton, Dickinson & Co.*, 474 F.3d 1323, 1333 (Fed. Cir. 2007)).

Second, Natco seeks to severely limit the scope of the claims by reading long passages of the specification, including several Figures, into the claims. Of course, the Federal Circuit has repeatedly warned of "the danger of reading limitations from the specification into the claim." *See, e.g.*, *Phillips*, 415 F.3d at 1323. It has also explained that, "[a]bsent a clear disavowal or contrary definition in the specification or the prosecution history, the patentee is entitled to the

full scope of its claim language." *Home Diagnostics*, 381 F.3d at 1358. To narrow the plain language of a claim, a disclaimer must be clear and unmistakable. *See Cordis Corp. v. Boston Scientific Corp.*, 561 F.3d 1319, 1329 (Fed. Cir. 2009); *see also id.* Here, there is no such disclaimer. In fact, the specification explicitly states that "[o]ne embodiment of the invention encompasses Form A of [lenalidomide]," and that the "entire scope of this invention is not limited by the specific examples described herein, but is more readily understood with reference to the appended claims." (*See* Ex. 6 at 5:35-37, 22:24-26.); *see also Phillips*, 415 F.3d at 1323-24 (embodiments are not definitions); *Tex. Instruments*, 805 F.2d at 1563 ("This court has cautioned against limiting the claimed invention to preferred embodiments or specific examples in the specification."). And of course, each claim recites specific limitations that define its scope. (*See id.* at 22:29-24:14); Atwood ¶¶ 24-26, 29.

Looking at claim 1 of the '357 patent as an example, common sense and the context of the claim as a whole dictate that the term "Form A" is a term of reference that, when read in context, simply means any crystal form of lenalidomide that has the particular characteristic value specified in the claim—in this case a DSC endotherm at approximately 270° C. Atwood ¶¶ 25-27, 29-30. (Ex. 6. at 22:29-32.) While the term "Form A" can be used to locate in the '357 patent specification one exemplary form of lenalidomide that reads on claim 1, the term cannot be used to read into the claim, as mandatory elements, the additional measured characteristics of the examples in the specification that are ***not*** included in the claim. *See, e.g.*, *Pfizer*, 2011 U.S. Dist. LEXIS 19180, at *13-16.

Natco would have the Court ignore the specifically recited limitations in each claim that recites "Form A," and instead read ***every*** reference to "Form A" in the specification, including several of the Figures, into ***each*** claim. As the Supreme Court noted over one hundred years

ago, it is legal error for a court to read limitations into claims when those limitations are not found in the claim language. *See McCarty*, 160 U.S. at 116. Ignoring this principle can result in a construction that is too narrow and devoid of any connection to the intrinsic record. *See, e.g.*, *Decisioning.com, Inc. v. Federated Dep't Stores, Inc.*, 527 F.3d 1300, 1312 (Fed. Cir. 2008) ("Engrafting the claims with these limitations produces anomalous results, not supported by the specification or the claims themselves."). Thus, Natco's construction of "Form A" lacks merit, both for failing to encompass the full scope of the claim term and for attempting to read myriad nonexistent limitations into the claims.

Third, Natco's construction is inconsistent with the language of the claims, which, as touched on above, are distinguished from one another by the inclusion of specific limitations that cover only a small subset of the information in the specification pertaining to exemplary "Form A." Atwood ¶¶ 25-27, 29-30. (*See* Ex. 6 at 22:29-24:14.) Natco's proposal, however, would render ***all*** of those specific limitations in ***every claim*** of the '357 patent duplicative and/or superfluous, and would result in at least claims 1-14 of the '357 patent having the ***exact same scope***.[10] Atwood ¶ 31. This makes no sense; it cannot be what the examiner and the applicants intended, nor what one of skill in the art would understand the claims to mean. *See id.*

For at least the foregoing reasons, Natco's proposed construction of "Form A" lacks merit, and the Court should adopt Celgene's proposed construction of that term.

(b) Other Disputed Claim Language Containing the Term "Form A"

Natco also seeks to construe three other phrases appearing in the claims of the '357 and '598 patents to mean the same thing as "Form A," even though each of those phrases already separately contains the term "Form A." Natco's proposals for those phrases lack merit for the

[10] Claims 15-17 recite additional limitations pertaining to pharmaceutical compositions.

same reasons as its proposal for "Form A," as well as the additional reasons set forth below. Celgene submits that none of those phrases require construction.

First, Natco seeks to construe the entirety of claim 1 of the '357 patent to mean the same thing as "Form A." Again, claim 1 recites as follows, with the disputed language in bold:

> 1. The **unsolvated crystalline Form A of 3-(4-amino-1-oxo-1,3 dihydro-isoindol-2-yl)-piperidine-2,6-dione, which has a differential scanning calorimetry thermogram having an endotherm at approximately 270° C**.

(Ex. 6 at 22:29-32.)

As an initial matter, this phrase is not an individual claim term. Rather, it is an amalgam of several separate words and phrases, the majority of which have their plain and ordinary meanings and do not require construction. Indeed, the parties have separately set forth their disputes regarding two of the terms contained within this phrase—"Form A" and "3-(4-amino-1-oxo-1,3 dihydro-isoindol-2-yl)-piperidine-2,6-dione"—and have agreed upon the meaning of two others, "crystalline" and "endotherm." *See* D.I. 248 at 5 & Ex. A at 8, 11-12, 15, & 17-18. There is no reason or support for Natco's attempt to read those terms—disputed and agreed upon—out of the claims by construing the entirety of claim 1 as a separate, individual term. Indeed, there is no lexicography in the specification for this lengthy phrase, which does not even appear in the patent until it is recited in claim 1. As such, the words of the claim are entitled to the full scope of their plain and ordinary meaning. *See Vitronics*, 90 F.3d at 1582. Since the remaining, undisputed claim terms have well-understood meanings, it is not necessary for the Court to construe those terms. *See Pfizer*, 2011 U.S. Dist. LEXIS 19180, at *21 ("[T]he claim construction process should not become 'an obligatory exercise in redundancy.'" (quoting *U.S. Surgical*, 103 F.3d at 1568)).

Even assuming that this language required construction—it does not—Natco's proposed construction lacks merit for at least the same reasons as its proposed construction of "Form A." *See supra* at § IV(B)(2)(a). Natco's insistence that the Court construe the entirety of claim 1 of the '357 patent to mean the same thing as its proposed definition of "Form A"—a term that is subsumed within the language of claim 1—merely demonstrates Natco's illogical violation of the canons of claim construction in a transparent attempt to avoid infringing the '357 patent. For at least these reasons, the Court should reject Natco's proposed construction of this phrase, which does not require construction.

Second, Natco seeks to construe two overlapping portions of claim 1 of the '598 patent to mean the same thing as "Form A." Claim 1 of the '598 patent recites as follows, with the first disputed phrase in **bold**, the second disputed phrase (which is subsumed within the first phrase) underlined, and "Form A" (which is subsumed in both the bold and underlined phrases) *italicized*:

> 1. A solid form of 3-(4-amino-1-oxo-1,3 dihydro-isoindol-2-yl)-piperidine-2,6-dione comprising an **unsolvated crystalline *Form A* of 3-(4-amino-1-oxo-1,3 dihydro-isoindol-2-yl)-piperidine-2,6-dione** having a differential scanning calorimetry thermogram endotherm at approximately 270° C., wherein the crystalline form is present at greater than about 80% by weight of the total weight of 3-(4-amino-1-oxo-1,3 dihydro-isoindol-2-yl)-piperidine-2,6-dione.

(Ex. 9 at 22:37-44.) As illustrated above, Natco seeks to construe three nested phrases to all have identical meanings. Specifically, Natco seeks to construe all of the underlined language to mean the same thing as its construction of "Form A," even though "Form A" is subsumed within the bolded language, and the bolded language is subsumed within the underlined language. If this sounds confusing, that's because it is. Natco's nested, Russian-doll approach to claim

construction is nonsensical and lacks merit. Indeed, claim construction "is not an obligatory exercise in redundancy." *U.S. Surgical*, 103 F.3d at 1568.

In any event, Natco once again seeks to construe phrases comprised of several different terms—including the disputed terms "Form A" and "3-(4-amino-1-oxo-1,3 dihydro-isoindol-2-yl)-piperidine-2,6-dione," and the agreed upon terms "crystalline" and "endotherm"—to mean the same thing as "Form A." This makes no sense, at least because it reads the agreed upon definitions of "crystalline" and "endotherm," as well as the disputed terms "Form A" and the chemical name of lenalidomide, out of the affected claims of the '598 patent. Natco's proposal also lacks merit for the same reasons as its attempt to construe all of claim 1 of the '357 patent to mean the same thing as "Form A."

Moreover, Natco ignores that each affected claim of the '598 patent recites specific limitations. For example, claim 1 specifically recites a DSC endotherm at 270º C. Natco's proposed construction would render this limitation duplicative and/or superfluous. One of ordinary skill in the art would therefore disagree with Natco's construction. Atwood ¶¶ 39-41.

In light of the foregoing, the Court should reject Natco's proposals for "Form A" and the three lengthier phrases that contain that term, and should instead adopt Celgene's construction of "Form A" and decline to construe the lengthier phrases.

(c) Disputed Claim Language that Does *Not* Recite the Term "Form A"

As explained above, Natco also seeks to construe five phrases that appear in the claims of the '219 and '598 patents to mean the same thing as "Form A," even though "Form A" does not appear in ***any*** claims of the '219 patent or ***any*** of the affected claims of the '598 patent. Celgene submits that none of these phrases require construction.

First, Natco seeks to construe a lengthy phrase—another amalgam of several separate words and phrases, the majority of which have their plain and ordinary meanings and do not require construction—that appears in all asserted claims of the '219 patent, and is bolded below in representative independent claim 1:

> 1. A pharmaceutical composition for oral administration comprising between 5 mg and 25 mg of an **unsolvated crystalline 3-(4-amino-1-oxo-1,3 dihydro-isoindol-2-yl)-piperidine-2,6-dione having an X-ray powder diffraction pattern comprising peaks at approximately 8, 14.5, 16, 17 .5, 20.5, 24, and 26 degrees 2θ**, and a pharmaceutically acceptable excipient, diluent, or carrier, wherein the composition is a solid dosage form.

(Ex. 7 at 22:25-32.) There is no lexicography for this language in the specification. As such, the words of the claim are entitled to the full scope of their plain and ordinary meaning. *See Vitronics*, 90 F.3d at 1582. Since the remaining, undisputed claim terms have well-understood meanings, it is not necessary for the Court to construe those terms. *See U.S. Surgical*, 103 F.3d at 1568; *Pfizer*, 2011 U.S. Dist. LEXIS 19180, at *21. Nevertheless, by seeking to read "Form A" into this claim language, Natco once again seeks to deny the claims their full scope, and to read a host of limitations into the claims. Of course, Natco's limitations are not supported by the claims, the specification, or the prosecution history. *See* Atwood ¶¶ 33-38, 43. Thus, Natco's construction lacks merit, both for failing to encompass the full scope of the claims and for attempting to read nonexistent limitations into the claims. *See McCarty*, 160 U.S. at 116; *Cordis*, 561 F.3d at 1329; *Decisioning.com*, 527 F.3d at 1312; *Home Diagnostics*, 381 F.3d at 1358.

Natco's constructions also lacks merit to the extent that Natco seeks to read into the claims the embodiment in the specification entitled "Form A." The Federal Circuit has repeatedly held that specific embodiments are not definitions, and has "expressly rejected the contention that if a patent describes only a single embodiment, the claims of the patent must be construed as being limited to that embodiment." *Phillips*, 415 F.3d at 1323; *Liebel-Flarsheim*

Co. v. Medrad, Inc., 358 F.3d 898, 906 (Fed. Cir. 2004) (same); *see also Tex. Instruments*, 805 F.2d at 1563 ("This court has cautioned against limiting the claimed invention to preferred embodiments.").

Natco also ignores that the disputed language in the '219 patent contains the disputed chemical name for lenalidomide, as well as the agreed upon term "crystalline." *See* D.I. 248, Ex. A at 5. Thus, to the extent that Natco seeks to construe this phrase to mean the same thing as "Form A," Natco also seeks to read out of the claims its proposed process limitations for the chemical name for lenalidomide, as well as the parties' agreed upon definition of "crystalline." This makes no sense, and Natco's proposed constructions must fail for this additional reason.

Second, Natco seeks to construe three even lengthier phrases that appear in independent claims 5, 10, and 17 of the '598 patent to mean the same thing as "Form A," despite the fact that none of those phrases contain the term "Form A." As with the other lengthy phrases that Natco seeks to construe, these phrases are not individual claim terms. Yet again, they are simply amalgams of separate words and phrases, the majority of which have their plain and ordinary meanings and therefore do not require construction. *See* Atwood ¶¶ 42-43.

Specifically, Natco seeks to construe the following bolded phrases from claims 5, 10, and 17 of the '598 patent to mean the same thing as its proposed construction of "Form A":

> 5. A solid form of 3-(4-amino-1-oxo-1,3 dihydro-isoindol-2-yl)-piperidine-2,6-dione comprising **an unsolvated crystalline form of 3-(4-amino-1-oxo-1,3 dihydro-isoindol-2-yl)-piperidine-2,6-dione having a differential scanning calorimetry thermogram endotherm at approximately 270° C. and an X-ray powder diffraction pattern comprising peaks at approximately 8, 14.5, and 16 degrees 2θ and a thermogravimetric analysis curve indicative of an unsolvated material**, wherein the crystalline form is present at greater than about 80% by weight of the total weight of 3-(4-amino-1-oxo-1,3 dihydro-isoindol-2-yl)-piperidine-2,6-dione.

(Ex. 9 at 22:57-67.)

> 10. A solid form of 3-(4-amino-1-oxo-1,3 dihydro-isoindol-2-yl)-piperidine-2,6-dione comprising **an unsolvated crystalline form of 3-(4-amino-1-oxo-1,3 dihydro-isoindol-2-yl)-piperidine-2,6-dione having an X-ray powder diffraction pattern comprising peaks at approximately 8, 14.5, 16, 17.5, 20.5, 24, and 26 degrees 2θ**, wherein the crystalline form is present at greater than about 80% by weight of the total weight of 3-(4-amino-1-oxo-1,3 dihydro-isoindol-2-yl)-piperidine-2,6-dione.

(Ex. 9 at 23:17-25.)

> 17. A pharmaceutical composition comprising from about 5 mg to about 25 mg of a solid form of 3-(4-amino-1-oxo-1,3 dihydro-isoindol-2-yl)-piperidine-2,6-dione comprising **an unsolvated crystalline form of 3-(4-amino-1-oxo-1,3 dihydro-isoindol-2-yl)-piperidine-2,6-dione having a differential scanning calorimetry thermogram endotherm at approximately 270° C.**, and a pharmaceutically acceptable excipient, diluent, or carrier; wherein the crystalline form is present at greater than about 80% by weight of the total weight of 3-(4-amino-1-oxo-1,3 dihydro-isoindol-2-yl)-piperidine-2,6-dione.

(Ex. 9 at 24:6-16.)

There is no lexicography for any of these phrases in the specification of the '598 patent. As such, they are entitled to their plain and ordinary meaning, and construction is not necessary. *See U.S. Surgical*, 103 F.3d at 1568; *Vitronics*, 90 F.3d at 1582; *Pfizer*, 2011 U.S. Dist. LEXIS 19180, at *21. Despite this fact, Natco seeks to read all references to "Form A" in the specification of the '598 patent, including the Figures, into independent claims 5, 10, and 17, and all of their dependent claims. Natco's proposals lack merit for at least the same reasons as its proposed construction of the disputed language in the '219 patent. For these reasons, and all of the reasons set forth above in connection with "Form A," the Court should reject Natco's attempt to read a host of limitations into the claims of the '598 patent, while simultaneously rendering each claim's explicit limitations—including the parties' agreed upon definitions of "crystalline" and "endotherm," as well as the other specific measured characteristics recited in each claim—duplicative and/or superfluous. *See* Atwood ¶¶ 42-43.

In light of the foregoing, the Court should reject Natco's proposal to construe each of these lengthy phrases—none of which contain the term "Form A"—to mean the same thing as "Form A."

V. CONCLUSION

For the foregoing reasons, Celgene respectfully requests that the Court reject Natco's proposed constructions, and adopt Celgene's proposals for each disputed term and phrase.

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